

WHAT IS CLAIMED IS:

1. A method of enhancing a vaccine-induced immune response comprising administering to a mammal receiving said vaccine an amount of a polypeptide that comprises the extracellular domain of K12, or portion of said extracellular domain that retains binding affinity for CD7, or mimetic thereof, sufficient to effect said enhancement.
2. The method according to claim 1 wherein said K12 is human K12.
3. The method according to claim 1 wherein said polypeptide is at least 95% homologous to the extracellular domain of human K12, or portion of said extracellular domain that retains binding affinity for CD7.
4. The method according to claim 1 wherein said polypeptide is soluble human K12.
5. The method according to claim 4 wherein said soluble K12 is present in a fusion protein.
6. The method according to claim 1 wherein said mammal is a human.
7. The method according to claim 1 wherein a nucleic acid that encodes said polypeptide is administered to said mammal under conditions such that said nucleic acid is expressed and said polypeptide is thereby produced.

8. The method according to claim 7 wherein said nucleic acid is present in a vector.

9. The method according to claim 7 wherein said nucleic acid is operably linked to a promoter.

10. A method of stimulating production of TNF- α , IL-2 and IFN- γ by TCR $\gamma\delta$ cells and NK cells comprising administering to a mammal receiving a vaccine an amount of a polypeptide that comprises the extracellular domain of K12, or portion of said extracellular domain that retains binding affinity for CD7, or mimetic thereof, sufficient to effect said stimulation.

11. The method according to claim 10 wherein mammal is a human.

12. The method according to claim 10 wherein said K12 is human K12.

13. The method according to claim 10 wherein a nucleic acid that encodes said polypeptide is administered to said mammal under conditions such that said nucleic acid is expressed and said polypeptide is thereby produced.

14. The method according to claim 13 wherein said nucleic acid is present in a vector.

15. The method according to claim 13 wherein said nucleic acid is operably linked to a promoter.

16. A composition comprising a polypeptide that comprises the extracellular domain of K12, or portion of said extracellular domain that retains binding affinity for CD7, or mimetic thereof, and an antigen.

17. The composition according to claim 16 wherein said polypeptide is conjugated to said antigen.

18. A composition comprising a nucleic acid sequence encoding a polypeptide that comprises the extracellular domain of K12, or portion of said extracellular domain that retains binding affinity for CD7, or peptidomimetic thereof, and a nucleic acid sequence encoding an antigen.

19. A nucleic acid sequence encoding a fusion protein wherein said fusion protein comprises: i) the extracellular domain of K12, or portion of said extracellular domain that retains binding affinity for CD7, or peptidomimetic thereof, and ii) an antigen.